

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of displaying one or more periodically updated channels of electronic information received over a network from a content server, the method comprising the computer-implemented steps of:
- initiating execution, in ~~a client~~ an end-user computer that is coupled over a public network to one or more content servers, of a personal server software that is hosted within the ~~client~~ end-user computer;
- receiving and storing at the ~~client~~ end-user computer, content channel information defining a plurality of content channels available from a plurality of sources associated with the one or more content servers;
- selecting a subset of channels from among the plurality of available content channels; periodically retrieving updated channel content for the subset of channels from the content servers across the public network, without communicating the channel selection information across the network;
- synthesizing one or more original, personalized electronic documents from the updated channel content from various sources;
- displaying the one or more documents;
- wherein the receiving, storing, selecting, retrieving and synthesizing are carried out by the personal server software that executes at the ~~client~~ end-user computer.
2. (Currently amended) A method as recited in Claim 1, further comprising the steps of allowing the user to create and store at the ~~client~~ end-user computer, custom, personalized virtual space organization information defining a spatial organization of content for the subset of channels, and wherein the step of synthesizing one or more electronic documents comprises the step of synthesizing one or more electronic documents that contain the updated channel content from various sources based on the virtual space information.

3. (Original) A method as recited in Claim 2, wherein the step of periodically retrieving updated channel content further comprises the steps of:
receiving an update specification for one channel among the subset of selected channels;
identifying an update method and time value within the update specification;
in accordance with the update specification, issuing a request for updated content data created after the time value, using the update method.

4. (Previously presented) A method as recited in Claim 1, further comprising the steps of receiving information defining a plurality of rendering contexts, wherein each of the rendering contexts is associated with one of the selected channels, and wherein the step of synthesizing one or more electronic documents comprises the step of rendering the electronic documents using the rendering context that is associated with one of the selected channels from which the updated channel content was obtained.

5. (Original) A method as recited in Claim 4, wherein each rendering context comprises a style sheet, template, script, helper reference, or applet.

6. (Previously presented) A method as recited in Claim 4, wherein the rendering context comprises a Cascading Style Sheet document, the updated channel content comprises HTML data, and wherein the synthesizing step comprises combining the rendering context with the updated channel content to result in creating and storing an HTML page that is capable of display by a browser.

7. (Previously presented) A method as recited in Claim 4, wherein the rendering context comprises a script, and wherein the synthesizing step comprises applying the updated channel content to the script as input, executing the script, and receiving output from the script that is capable of display by a browser.

8. (Currently amended) A method as recited in Claim 7, wherein the steps of receiving, selecting, retrieving, synthesizing, and displaying are carried out by a personal server

3 | software that is executed at the ~~client~~ end-user computer, and wherein the script is
4 | executed by an embedded processor in the personal server software.

1 9. (Currently amended) A method as recited in Claim 4, wherein the rendering context
2 | comprises a reference to a program that is stored at the ~~client~~ end-user computer, and
3 | wherein the synthesizing step comprises executing the program using the updated
4 | channel content as input and receiving output from the program that is capable of display
5 | by a browser.

1 10. (Previously presented) A method as recited in Claim 4, wherein the rendering context
2 | comprises an applet, and wherein the synthesizing step comprises executing the applet
3 | using the updated channel content as input and displaying programmatic output from the
4 | applet using a browser.

1 11. (Original) A method as recited in Claim 1, further comprising the steps of:
2 | identifying whether the updated channel content contains an identification of an
3 | embedded channel;
4 | requesting second updated channel content for the embedded channel.

1 12. (Currently amended) A method as recited in Claim 1, wherein the step of synthesizing
2 | one or more electronic documents further comprises the steps of:
3 | receiving the updated channel content, a virtual space specification, and a page
4 | organization specification;
5 | replacing one or more tokens in the updated channel content with other channel content
6 | information or personal content information located on the ~~client~~ end-user
7 | computer;
8 | iterating the replacing step over all updated channel content for all channels that are
9 | identified in the channel selection information.

1 13. (Currently amended) A method as recited in Claim 1, wherein the step of synthesizing
2 one or more electronic documents further comprises the steps of
3 receiving the updated channel content, a virtual space specification, and a page
4 organization specification;
5 receiving information defining a plurality of rendering contexts, wherein each of the
6 rendering contexts is associated with one of the selected channels;
7 replacing one or more tokens in the updated channel content with other channel content
8 information or personal content information located on the ~~client~~ end-user
9 computer;
10 iterating the replacing step over all updated channel content for all channels that are
11 identified in the second information;
12 creating one or more static content elements in an electronic document based on a
13 rendering context that is associated with one of the selected channels from which
14 the updated channel content was obtained

1 14. (Cancelled)

1 15. (Currently amended) A method as recited in Claim 1, further comprising the step of
2 generating and displaying a user interface display that includes a list of available
3 channels, wherein the list of available channels is created based on issuing a query to a
4 channel database that is stored in association with a personal server software executed at
5 the ~~client~~ end-user computer that carries out the synthesizing and displaying steps.

1 16. (Currently amended) A method as recited in Claim 1, further comprising the step of
2 generating and displaying a user interface display that includes a list of available
3 channels, wherein the list of available channels is created based on issuing a query to a
4 channel database that is stored in association with a personal server software executed at
5 the ~~client~~ end-user computer that carries out the synthesizing and displaying steps, and
6 based on a user-specific channel topology that is retrieved from the channel database.

1 17. (Original) A method as recited in Claim 1, further comprising the steps of
2 rescheduling the retrieving step when the updated channel content cannot be retrieved
3 immediately.

1 18. (Currently amended) A method as recited in Claim 1, wherein displaying the one or
2 more electronic documents comprises the steps of delivering the electronic documents
3 from a personal server software executed in the ~~client~~ end-user computer to a browser
4 executed in the ~~client~~ end-user computer over a TCP/IP loopback interface of the ~~client~~
5 end-user computer.

1 19. (Currently amended) A method as recited in Claim 1, wherein displaying the one or
2 more electronic documents comprises the steps of:
3 providing a Web server and a browser in association with the ~~client~~ end-user computer;
4 loading one or more virtual display spaces from a personal server software that is
5 provided in the ~~client~~ end-user computer;
6 generating a view of the one or more virtual display spaces by using the browser to
7 request the one or more virtual display spaces from the Web server over a
8 loopback interface of the ~~client~~ end-user computer.

1 20. (Currently amended) A method as recited in Claim 19, wherein the step of generating a
2 view includes the step of directing the browser to display information located at a
3 hostname that is associated with the loopback interface of the ~~client~~ end-user computer.

1 21. (Currently amended) A method as recited in Claim 19, further comprising the steps of:
2 binding the Web server of the ~~client~~ end-user computer to a pre-defined port that is
3 associated with the loopback interface of the ~~client~~ end-user computer;
4 placing the Web server in a listening mode;
5 using the browser, issuing a display request to a hostname that is associated with the
6 loopback interface.

22. (Original) A method as recited in Claim 19, further comprising the steps of:
examining the IP address of the request;
determining whether requests from the IP address are permitted to view the virtual display space, based on a stored mapping of IP addresses to identifiers of virtual display spaces;
generating a view of the electronic documents from the virtual display space only when requests from the IP address are permitted to view the virtual display space.

23. (Currently amended) A method as recited in Claim 19, further comprising the steps of:
rendering the requested one or more documents from the loaded virtual display space using a Web page synthesizer that is provided in the personal server software;
providing the rendered one or more electronic documents to the Web server;
serving the rendered one or more electronic documents from the Web server to the browser over the loopback interface.

24. (Original) A method as recited in Claim 19, wherein the embedded Web server is a proxy server that binds to an arbitrary port.

25. (cancelled)

26. (Currently amended) A computer-readable storage medium carrying one or more sequences of instructions for displaying one or more periodically updated channels of electronic information received over a network from a content server, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:
initiating execution, in ~~a client~~ an end-user computer that is coupled over a public network to one or more content servers, of a personal server software that is hosted within the ~~client~~ end-user computer;

receiving and storing at the ~~client~~ end-user computer, content channel information
defining a plurality of content channels available from a plurality of various
sources associated with the one or more content servers;
selecting a subset of channels from among a plurality of available content channels;
periodically retrieving updated channel content for the subset of channels from the
content servers across the public network, without communicating the channel
selection information across the network;
synthesizing one or more original, personalized electronic documents from the updated
channel content from various sources;
displaying the one or more documents;
wherein the receiving, storing, selecting, retrieving and synthesizing are carried out by
the personal server software that executes at the ~~client~~ end-user computer.

27. (Currently amended) An apparatus for displaying one or more periodically updated
channels of electronic information received over a network from a content server,
comprising:
means for initiating execution, in a ~~client~~ an end-user computer that is coupled over a
public network to one or more content servers, of a personal server software that
is hosted within the ~~client~~ end-user computer;
means for receiving and storing at the ~~client~~ end-user computer, content channel
information defining a plurality of content channels available from a plurality of
sources associated with the one or more content servers;
means for selecting a subset of channels from among a plurality of available content
channels;
means for periodically retrieving updated channel content for the subset of channels from
the content servers across the public network, without communicating the channel
selection information across the network;
means for synthesizing one or more original, personalized electronic documents from the
updated channel content from various sources;
means for displaying the one or more documents;

wherein the personal server software that executes at the ~~client~~ end-user computer comprises the receiving, storing, selecting, retrieving and synthesizing means.

28. (Currently amended) An apparatus for displaying one or more periodically updated channels of electronic information received over a network from a content server, comprising:
- a network interface that is coupled to the data network for receiving one or more packet flows therefrom;
- one or more processors;
- one or more stored sequences of instructions which, when executed by the processors, cause the processors to carry out the steps of:
- initiating execution, in a ~~client~~ an end-user computer that is coupled over a public network to one or more content servers, of a personal server software that is hosted within the end-user computer ~~client~~;
- receiving and storing at the ~~client~~ end-user computer, content channel information defining a plurality of content channels available from a plurality of various sources associated with the one or more content servers;
- selecting a subset of channels from among a plurality of available content channels;
- periodically retrieving updated channel content for the subset of channels from the content servers across the public network, without communicating the channel selection information across the network;
- synthesizing one or more original, personalized electronic documents from the updated channel content from various sources;
- displaying the one or more documents;
- wherein the receiving, storing, selecting, retrieving and synthesizing are carried out by the personal server software that executes at the ~~client~~ end-user computer.
29. (Currently amended) A personal server software that executes at and is hosted within a ~~client~~ end-user computer and is capable of displaying one or more periodically updated channels of electronic information received over a network from one or more content servers that are coupled through the network to the ~~client~~ end-user computer, comprising:

a channel manager configured to receive and store, in a channel database of the personal server software, channel selection information defining a subset of channels that are selected from among a plurality of available content channels associated with the one or more content servers, and to periodically retrieve updated channel content for the subset of channels from the content servers across the public network, without communicating the channel selection information across a network;

a page synthesizer configured to synthesize one or more original, personalized electronic documents that contain the updated channel content from various sources and to provide the one or more electronic documents to a browser for display.

30. (Currently amended) A personal server software as recited in Claim 29, further comprising:
- a virtual space designer configured to receive and store virtual space organization information defining an organization of content for the subset of channels within a virtual display space;
 - a virtual space manager configured to synthesize one or more original, personalized electronic documents that contain the updated channel content based on the virtual space organization information in coordination with the page synthesizer.

31. (Currently amended) An apparatus as recited in Claim 27, further comprising means for allowing the user to create and store at the ~~client~~ end-user computer, custom, personalized virtual space organization information defining a spatial organization of content for the subset of channels, and wherein the means for synthesizing one or more electronic documents comprises means for synthesizing one or more electronic documents that contain the updated channel content from various sources based on the virtual space information.

32. (Previously presented) An apparatus as recited in Claim 27, further comprising means for receiving information defining a plurality of rendering contexts, wherein each of the

rendering contexts is associated with one of the selected channels, and wherein the means for synthesizing one or more electronic documents comprises means for rendering the electronic documents using the rendering context that is associated with one of the selected channels from which the updated channel content was obtained.

33. (Currently amended) An apparatus as recited in Claim 27, wherein the means for synthesizing one or more electronic documents further comprises:
- means for receiving the updated channel content, a virtual space specification, and a page organization specification;
 - means for replacing one or more tokens in the updated channel content with other channel content information or personal content information located on the ~~client~~ end-user computer;
 - means for iterating the replacing step over all updated channel content for all channels that are identified in the channel selection information.

34. (Currently amended) An apparatus as recited in Claim 27, wherein the means for displaying the one or more electronic documents comprises means for delivering the electronic documents from a personal server software executed in the ~~client~~ end-user computer to a browser executed in the ~~client~~ end-user computer over a TCP/IP loopback interface of the ~~client~~ end-user computer.

35. (Currently amended) An apparatus as recited in Claim 27, wherein the means for displaying the one or more electronic documents comprises:
- means for providing a Web server and a browser in association with the ~~client~~ end-user computer;
 - means for loading one or more virtual display spaces from a personal server software that is provided in the ~~client~~ end-user computer;
 - means for generating a view of the one or more virtual display spaces by using the browser to request the one or more virtual display spaces from the Web server over a loopback interface of the ~~client~~ end-user computer.

1 36. (Currently amended) An apparatus as recited in Claim 28, further comprising
2 instructions which when executed cause allowing the user to create and store at the ~~client~~
3 end-user computer, custom, personalized virtual space organization information defining
4 a spatial organization of content for the subset of channels, and wherein the instructions
5 for synthesizing one or more electronic documents comprise instructions which when
6 executed cause synthesizing one or more electronic documents that contain the updated
7 channel content from various sources based on the virtual space information.

1 37. (Previously presented) An apparatus as recited in Claim 28, further comprising
2 instructions which when executed cause receiving information defining a plurality of
3 rendering contexts, wherein each of the rendering contexts is associated with one of the
4 selected channels, and wherein the instructions for synthesizing one or more electronic
5 documents comprise instructions which when executed cause rendering the electronic
6 documents using the rendering context that is associated with one of the selected
7 channels from which the updated channel content was obtained.

1 38. (Currently amended) An apparatus as recited in Claim 28, wherein the instructions for
2 synthesizing one or more electronic documents further comprise instructions which when
3 executed cause:
4 receiving the updated channel content, a virtual space specification, and a page
5 organization specification;
6 replacing one or more tokens in the updated channel content with other channel content
7 information or personal content information located on the ~~client~~ end-user
8 computer;
9 iterating the replacing step over all updated channel content for all channels that are
10 identified in the channel selection information.

1 39. (Currently amended) An apparatus as recited in Claim 28, wherein the instructions for
2 displaying the one or more electronic documents comprise instructions which when
3 executed cause delivering the electronic documents from a personal server software

4 | executed in the ~~client~~end-user computer to a browser executed in the ~~client~~end-user
5 | computer over a TCP/IP loopback interface of the ~~client~~end-user computer.

- 1 40. (Currently amended) An apparatus as recited in Claim 28, wherein the instructions for
2 displaying the one or more electronic documents comprise instructions which when
3 executed cause:
4 | providing a Web server and a browser in association with the ~~client~~end-user computer;
5 | loading one or more virtual display spaces from a personal server software that is
6 | provided in the ~~client~~end-user computer;
7 | generating a view of the one or more virtual display spaces by using the browser to
8 request the one or more virtual display spaces from the Web server over a
9 | loopback interface of the ~~client~~end-user computer.